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AUTHOR Sim, Wong-Kooi
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TEACHER JOB SATISFACTION AND SOME
ASSOCIATED VARIABLES IN SINGAPORE

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Institute of Education, Singapore

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ABSTRACT

Questionnaire responses from 926 secondary school teachers were analysed in order to relate various background characteristics variables (classified as Personal Characteristics, Professional Characteristics, and School Characteristics) and job characteristics variables (divided into Conditions of Work, Roles and Responsibilities, and Teaching Practices) to teacher job satisfaction variables. Using factor analysis, the 2 factors of Overall Satisfaction and Work Orientation were regressed on selected background characteristics variables as well as sets of higher order factors of the job characteristics variables. Arising from multiple regression analyses, Conducive Work Environment, Opportunities for Professional Development and Teacher-Pupil Rapport were found to be most predictive of Overall Satisfaction, whereas Professional Autonomy, Pastoral Role and Pupil Behaviour Control were most likely to be associated with Work Orientation. Comparisons with the findings from the analysis of interview results and from cross-cultural comparisons among the countries involved in the major study are strongly urged for arriving at more definitive suggestions for improving teacher job satisfaction.

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1.0 INTRODUCTION

- 1.1 This paper reports the findings of a part of a part of a part of a major cross-cultural study on secondary teachers' perceptions of their job satisfaction and associated variables. In the first place, this project is being undertaken by 6 countries and Singapore is a part of the consortium. In each country, data are collected from interviews and questionnaire surveys, but this paper will be confined to the analysis of questionnaire data only. Finally, even though the massive data can be analysed in a variety of ways, only selected data and some of the analyses would be presented.
- 1.2 The main research question to be explored in this paper is: to what extent are certain background and job characteristics related to teacher job satisfaction for a sample of secondary school teachers?
- 1.3 Since the job characteristics and teacher job satisfaction variables have been subjected to factor analysis, a more useful representation of the main components of the study is to incorporate some of the resultant factors, as shown in Fig. 1. Factor analysis of the teacher job satisfaction variables has resulted in 2 clearly defined factors which have been labelled 'Overall Satisfaction' and 'Work Orientation'.
- 1.4 Job characteristics are represented by 3 sets of items which are concerned with Conditions of Work, Roles and Responsibilities and Teaching Practices. In each of these sets of items, the respondents were asked the extent to which each item is present in their job as well as how important is each item for their job satisfaction. Each of the ratings on a 3-point scale according to 'presence' and according to 'importance' are separately factor analysed. The entries in Fig. 1 show the names of the first three second-order factors.

- 1.5 While many more background characteristics were captured by the questionnaire, only some selected ones would be examined in this paper. These variables have been grouped into Personal Characteristics, Professional Characteristics and School Characteristics. Some explanations may be needed for the selection of the latter set of variables. In Singapore, which is a compact island state, the rural-urban dimension of school location is meaningless. Likewise, the size of school is also not very meaningful, for there are schools that are large because they are popular or because places in choice schools are limited and the school is the last choice for many students. Because of centralisation tendencies, the distinction between Government and (Government) Aided Schools is also fast blurring, but perhaps there are residual differences in school ethos to make School Type a worthwhile dimension for comparison. While teachers in secondary schools could differ in their job satisfaction from those in junior colleges, which prepare students for university entry, teachers in pre-university centres experience a different work environment. Although they do prepare students for university entry, many do not make it even though the students spend 3 years after secondary schooling. Furthermore, these centres are situated in secondary schools, where facilities and resources are more limited than those in junior colleges. Comparisons of the perceptions of teachers by School Level (i.e. those from junior colleges, pre-university centres and secondary schools) might therefore be useful. With our highly examination-oriented schools, schools that are placed among the top quartile are probably different from those in the bottom quartile according to overall achievement in the public examination. Thus, comparing teachers in terms of whether they are from high-achieving or low-achieving schools (School Status) could be quite meaningful.
- 1.6 The composition of the sample of 926 teachers, which constitute approximately 90% of usable returns, are shown for each of the background characteristics in Fig. 2. Thus, there is a predominance of females (about two-thirds), with about a third in each of the 3 age ranges: less than 30, 30-39, and 40 and above, and a little more than two-thirds with degrees. A quarter of the sample are language arts teachers and a large majority (43.0%) teach about 6 periods (of about 45 minutes per period) each day. But more than half (56.1%) are not members of professional associations. Finally, most them (77.6%) are from government schools, a majority (57.7%) teach in lower achieving schools and a majority (61.9%) also teach at the secondary school level.

2.0 SCOPE OF STUDY

- 2.1 In the questionnaire, 9, 33, 19 and 20 items were used to represent Teacher Job Satisfaction, Work Conditions, Roles and Responsibilities, and Teaching Practices respectively. Although responses to individual items would be compared within each group and also in relation to the selected Background Characteristics, factor analysis is employed as a data reduction device so as to allow more manageable, and perhaps more meaningful, comparisons.
- 2.2 Some of the Background Characteristics variables are compared one at a time with each of the Teacher Job Satisfaction variables as well as with each of the resultant factors through one-way analysis of variance. Multiple regression analysis is also used to relate the combined group of Background Characteristics with each of the factors for Teacher Job Satisfaction.
- 2.3 Particular attention is paid to the Job Characteristics variables, for they represent what Lawler (1973) has termed as "facet satisfaction" or "people's affective reactions to particular aspects of their job", as distinguished from "overall satisfaction" which he termed as "a person's affective reactions to his total work role".
- 2.4 Another useful distinction is that between the perceived "presence" and perceived "importance" of each of the Job Characteristics items. Intuitively, the relative degrees of "presence" and "importance" should be related to satisfaction or dissatisfaction, but the relationship is by no means simple nor likely to be linear. For instance, using a simple difference model high presence with high importance could be mistaken for low presence with low importance. Likewise, using a simple product model high presence with low importance could be mistakenly equated with low presence with high importance. Some attempts to group the joint responses for each item will be made for each set of Job Characteristics variables in order to arrive at the overall pattern of responses. The co-occurrence of "presence" and "importance" variables in clusters arrived at through factor analysis is expected to yield meaningful associations for this study. Multiple regression analysis would then be used to relate each set of factor score for Work Conditions, Roles and Responsibilities, and Teaching Practices with each

of the factors for Teacher Job Satisfaction. However interesting, it is beyond the scope of this study to delve into the measurement and meaning of various ways of combining these and other variables, such as those discussed by Evans (1969) and Wanous and Lawler (1972).

- 2.5 Besides attempting to arrive at results that could be compared with those from the other countries that have applied the same instrument, with perhaps slight modifications to accommodate the more important features which obtain in their respective countries, this study hopes also to compare with the findings of the few local studies that have been conducted on teacher job satisfaction or dissatisfaction. One interview study which was briefly reported in the so-called Goh Report (1979), resulted in a major reform in the educational system in Singapore. Taking teacher satisfaction and low teacher morale as synonymous the Report concluded as follows:-

"The majority of the teachers interviewed (82%) indicated that their morale was not low. However, a significant relationship existed between the type of school (poor and good by examination results) and teacher's morale. Major factors which have affected morale were low social status, frequent changes in the education system, ineffective system of supervision and guidance and poor promotion prospects".

- 2.6 A more recent study by Ho (1985) investigated ten job facets (recognition and status, students, resources, teaching assignment, supervision and guidance, workload, salary and benefits, advancement and growth, co-workers, and management and policy) which affect satisfaction and dissatisfaction of secondary school teachers. Each of these separately as well as when combined were significantly correlated with overall job satisfaction. Some of the findings were comparable to those obtained for the Goh Report, although they were strictly non-comparable because of differences in instrumentation. Ho's study also found that a number of personal variables (sex, academic qualification, age and experience) were related significantly to overall job satisfaction.
- 2.7 In the current efforts by the Ministry of Education to attract better qualified graduates and school leavers to take up teaching, some understanding of secondary teachers' perceptions of various facets of Work Conditions, Roles and Responsibilities and Teaching Practices and their relationships with Teacher Job Satisfaction will be useful in focussing on aspects of teaching and the work environment that could be further improved.

3.0 SURVEY FINDINGS

- 3.1 Table 1 summarises the results for 9 Teacher Job Satisfaction variables. Overall, the responses are on the positive side. The highest response is for the question, "To what extent is SUCCESS AT YOUR WORK IMPORTANT to you?" The mean response is closer to the top end of the scale which ranges from "Very Little" to "A Great Deal". The lowest response is for the question "Knowing what you know now, if you had to decide all over again whether to ENTER TEACHING, how likely is it that you would do so?" The mean response is closer to "Somewhat Likely" on the scale which ranges from "Not at all Likely" to "Very Little". There is therefore some basis for concern that some teachers are somewhat likely to contemplate leaving teaching. In terms of group comparisons by Background Characteristics, there does not seem to be a very consistent pattern, except for Gender, where Males tend to be generally more positive.
- 3.2 The responses to the item on Work Conditions have been arranged in ascending order according to the perception of 'presence' (How much is this present in my job?) and the responses to the question of 'importance' (How important is this for job satisfaction?) are shown alongside the corresponding items of the former, as shown in Table 2. Overall, all items are seen as much more important than they are actually present.
- 3.3 If the response pairs are re-grouped as shown in Table 2A, one item which teachers are probably most satisfied with is the job security. This result might have been due to the fact that when the questionnaires were administered in the middle of last year, Singapore was just emerging from a brief period of economic recession which saw some people being retrenched in the private sector, many of whom were then trying to seek a more secure job like teaching. Items 2, 27 and 32 suggest areas where teachers are least satisfied and includes the perceived lack of adequate promotion opportunities, which was also one of the consequences of policies of wage restraint which accompanied strategies for economic recovery. However, the study by Ho (1985) tended also to confirm the Goh Report (1979) which observed dissatisfaction regarding prospects of promotion.

- 3.4 Turning to differences by Background Characteristics, it may be concluded that generally Males, older respondents (40 years or more) and those with 2 or more professional memberships appear to be more satisfied in perceiving the presence of many facets more significantly than the other groups.
- 3.5 The ratings for items on Roles and Responsibilities are relatively low, as shown in Table 3. But 'importance' is again rated higher than 'presence' for all items except item 12, which suggests that teachers generally feel that they are already doing more than what they should be expected to do in extra-curricular activities like running clubs, sports, drama, trips, etc. Again, re-grouping of items as in Table 3A suggests that teachers hardly attend teacher union meetings, attend conferences, participate in research, induct new teachers, supervise student teachers, and represent staff on committees (items 17, 15, 14, 6, 5, and 18) although they are more keen to undertake these activities, especially in research participation and conference attendance. This augurs well for the teaching profession. In the case of items 8, 3, 11, 2 and 10, which are related to teachers' pastoral role, although they are rated relatively highest in terms of 'presence', the ratings of 'importance' are also higher. To what extent this was influenced by the extensive public discussions of a report on Towards Excellence in Schools, which recommended inter alia the need for emphasis on pastoral care and career guidance cannot however be ascertained. In terms of Background Characteristics, again generally males, older teachers, and those who are more active regarding professional memberships appear to have relatively more favourable perceptions.
- 3.6 Table 4 summarises the responses to the items on Teaching Practices, where the ratings for 'importance' are generally higher than those for 'presence' although the discrepancies are not as large as in the previous responses. Referring to the groupings in Table 4A, it is interesting to note that items 20, 19 and 13 which relate to pastoral practices are rated relatively lowest in terms of 'presence', while they are considered to be higher on 'importance'. The last few items (7, 9 and 10) suggest that teachers are generally satisfied with being able to communicate clearly with pupils on work expectations. Group differences are however less clear-cut.

3.7 Factor analysis of the 9 items of Teacher Job Satisfaction with varimax rotation yielded two distinct factors, which are labelled Overall Satisfaction and Work Orientation. Table 5 shows the significant loadings of the variables which may be identified by referring to Table 1. It is noteworthy that the experience of stress variable is loaded negatively on Overall Satisfaction and positively on Work Orientation. This suggests a possible area of conflict, for teachers may regard a situation as satisfying if it is free from stress, but they nevertheless realise that stress is inevitable for work success. For subsequent analyses, these two factors would be used in comparing with other variables.

3.8 Although many significant differences were found when some of the Background Characteristics were compared with each facet of Work Conditions, Roles and Responsibilities, and Teaching Practices, very few significant differences were found in relation to the 2 Teacher Job Satisfaction factors. Table 6 summarises the results of the one-way ANOVAS which show significant differences only in the following:-

Age group:	with those less than 30 years old rating lower in Overall Satisfaction
Qualification Level,	with the non-graduates being significantly higher in Overall Satisfaction
No. of Periods/Day	with those having less than 6 periods per day being more favourable in Overall Satisfaction
Professional Memberships	with those having more professional memberships being significantly higher on Work Orientation.

Multiple regression of these variables, with the appropriate use of dummy variables for nominal data, do not however result in a statistically significant result.

3.9 Factor analysis, followed by varimax rotation, of the Conditions of Work variables according to 'presence' and 'importance' separately yielded 7 and 8 factors, respectively. When factor scores from these two analyses were combined and subjected to a second-order factor analyses, 7 higher order factors were produced which would subsequently be used to represent the 66 variables of Work Conditions. The results are summarised in Table 7. Only the first 3 higher order factors would be labelled and interpreted in this paper.

3.10 The first factor (COND 1) is straightforward, being loaded with both 'presence' and 'importance' factors which in turn are loaded with items like:-

- 1 I feel encouraged to experiment with different strategies and ideas.
- 2 I have an opportunity to help develop policies in my school.
- 3 I have freedom to decide how I do my work.

This factor is therefore labelled 'Professional Autonomy'.

3.11 The second factor (COND 2) is, also clear-cut, being loaded with both 'presence' and 'importance' factors which in turn are loaded with such items as:-

- 17 I have the support and cooperation of colleagues.
- 19 I have sufficient opportunity for professional interactions with other colleagues.
- 16 I have responsive students in my class.

This factor is accordingly labelled "Collegial Support".

3.12 Interpretation of the third factor (COND 3) is however a little tricky because similar factors are loaded with opposite signs. The 'presence' factor is loaded negatively, while the 'importance' factor is loaded positively. But the variables that may represent include such items as:-

- 4 The sizes of my classes are reasonable.
- 5 I have enough free periods during the school week.
- 12 The amount of clerical and administrative work I have to do is reasonable.

The label "Incongruent Work Environment" is therefore used for this factor.

- 3.13 All 7 factors were then included in the multiple regression using Overall Satisfaction (OS) and Work Orientation (WO) separately as criteria variables. In each case, the Multiple R² turns out to be very highly significant ($P < .001$), but they account for only 15.0% and 9.7% of the variance respectively. The results are perhaps best summarised in the form of regression equations as shown below:-

$$\text{OS} = -.22 \text{ COND } 3 + .16 \text{ COND } 5 + .16 \text{ COND } 2 \\ + .14 \text{ COND } 1 + .12 \text{ COND } 4 + .11 \text{ COND } 6 + .02$$

$$\text{WO} = .21 \text{ COND } 1 + .12 \text{ COND } 4 + .12 \text{ COND } 3 \\ + .11 \text{ COND } 2 + .09 \text{ COND } 7 + .00$$

Hence, Incongruent Work Environment is most predictive of Overall Satisfaction. Since, the beta weight is negative, one way of interpreting the result is to say that Conducive or Reasonable Work Environment is most highly related to Overall Satisfaction. In the case of Work Orientation, however, it is Professional Autonomy which is most highly predictive.

- 3.14 Factor analysis, with varimax rotation, of the Roles and Responsibilities variables according to 'presence' and 'importance' separately yielded 5 or 3 factors, respectively. When factor scores of these two sets of factors were subjected to a second-order factor analysis, 4 higher order factors were produced. This represents a considerable reduction of variables from the original 38. The results are shown in Table 8 and again only the first 3 higher order factors would be discussed in this paper.

- 3.15 The first higher order factor (ROLE 1) is loaded by 'presence' and 'importance' factors which are in turn loaded with items like:-

- 11 work on the well being of pupils.
- 10 work on evaluation of pupil progress.
- 8 work on counselling individual pupils.

This factor clearly reflects the teacher's "Pastoral Role".

3.16 The second factor (ROLE 2) is also clear-cut with loadings by 2 factors which in turn are loaded with such items as:-

15 attend national/regional conferences.

14 participate in research activities.

17 attend teacher union meetings.

Bearing in mind that in Singapore, the Singapore Teachers' Union is mainly concerned with professional activities and hardly concerned with industrial actions, attending teacher union meetings could be a very professional activity. Hence, this factor is named "Professional Development".

3.17 The third factor (ROLE 3) is likewise loaded with similar factors which in turn are loaded with items like:-

5 supervision of student teachers.

6 induction of new teachers.

4 initiating contacts.

Slightly less likely loaded is item 1: share responsibility in school management. Hence, the factor is named "Supervision and Management".

3.18 When multiple regression was carried out with the 4 higher order factors as predictors and each of the 2 teacher job satisfaction variables as criterion variables, the Multiple R^2 is found to be very highly significant, even though the variance explained is very low in each case. For Overall Satisfaction (OS) as criterion variable, it is only 4.0% while for Work Orientation (WO) as criterion variable, 16.5% of the variance is explained. Again, the results are best shown by the following regression equations:-

$$OS = .13 \text{ ROLE } 2 + .11 \text{ ROLE } 1 + .10 \text{ ROLE } 3 + .02$$

$$WO = .31 \text{ ROLE } 1 + .24 \text{ ROLE } 2 + .01$$

Thus, teachers perceive Professional Development as important for their Overall Satisfaction, while they would like to see Pastoral Care as contributory to their Work Orientation.

3.19 For the Teaching Practices variables, factor analysis with varimax rotation has also yielded 5 and 3 factors for the 'presence' and 'importance' ratings, respectively. When these factors were further subjected to second order factor analysis, 4 higher order factors were produced. The results are shown in Table 9 and again only the first 3 factors would be interpreted.

3.20 The first factor (PRAC 1) is represented by factors, which in turn are loaded by such items as:-

- 4 Develop a warm, personal relationship with pupils.
- 6 Build positive relationships between students.
- 5 Use a variety of approaches to gain pupil interest and participation.

This factor is accordingly labelled as "Teacher-pupil Rapport".

3.21 The second factor (PRAC 2) is loaded with the 2 corresponding 'presence' and 'importance' factors, which in turn are loaded with such items as:-

- 7 communicate clear rules and expectations for pupil behaviour.
- 9 inform pupils of clear learning objectives.
- 3 plan lessons with concern for sequencing and timing.

Taking these and other significant items into consideration, the factor is labelled as "Pupil Behaviour Control".

3.22 Finally, the third factor (PRAC 3) is loaded with factors which are in turn loaded with items like:-

- 18 Encourage critical thinking.
- 17 Encourage creative thinking.
- 12 Give special attention to developing pupils' thinking skills.

Although these items would suggest that this factor is concerned solely with developing thinking, scrutiny of the other contributory items suggest that the factor covers other aspects of pedagogy. A more appropriate label is therefore "Pupil-oriented Pedagogy".

- 3.23 Now, combining all 4 higher order factors in a multiple regression with Overall Satisfaction (OS) and Work Orientation (WO) as criterion variables, the resultant Multiple R^2 is again found to be very highly significant for each of the 2 criterion variables, although again the variance explained is only 4.9% and 12.7% for OS and WO, respectively. Again the results are best represented by the following regression equations:-

$$OS = .15 \text{ PRAC } 2 + .12 \text{ PRAC } 3 + .11 \text{ PRAC } 4 - .00$$

$$WO = .21 \text{ PRAC } 2 + .18 \text{ PRAC } 1 + .17 \text{ PRAC } 3 \\ + .09 \text{ PRAC } 4 + .01$$

Teachers apparently regard Teacher-pupil Rapport as important for their Overall Satisfaction, and see the need for Pupil Behaviour Control in their Work Orientation.

4.0 DISCUSSION AND CONCLUSIONS

- 4.1 This study has shown that, for a sample of secondary teachers in Singapore, there are two well-defined dimensions of Teacher Job Satisfaction, with the amount of stress experienced playing opposite roles. Thus, for Overall Satisfaction, stress should be minimised, if not eliminated, for teachers to enjoy their practice. In contrast, Work Orientation is expected to be stressful, but nonetheless satisfying especially in the attainment of work success.
- 4.2 In relating the Job Characteristics variables to each of these dimensions, certain factors pertaining to Conditions of Work, Roles and Responsibilities and Teaching Practices have been particularly prominent. The presence of a Conducive Work Environment, with teachers able to undertake activities leading to their Professional Development and to enjoy the practice of Teacher-Pupil Rapport, is presumably a minimal stress situation that could lead to Overall Satisfaction. On the other hand, the challenge of Professional Autonomy, with teachers able to assume the Pastoral Role and to exert better Pupil Behaviour Control, could be associated with Work Orientation that is expected to be stressful but satisfying.

- 4.3 The relationships between certain selected Background Characteristics and either the Teacher Job Satisfaction or the Job Characteristics variables are less clear-cut or interesting. In general however, non-graduates, older teachers and those with less heavy teaching loads were found to manifest greater Overall Satisfaction, while teachers who are members of more professional organisations are better in terms of Work Orientation. That non-graduates have turned out to be more satisfied, overall, with teaching than graduates may seem unexpected in view of the large difference in salaries between the two categories of teachers. But salary is apparently not a crucial determinant, and, in any case, a similar result was obtained by Ho (1985). For the Background Characteristics variables, males, older teachers and those who join more professional organisations are also generally more positive in their perceptions of Work Conditions, Roles and Responsibilities and Teaching Practices.
- 4.4 That older teachers have more favourable perceptions than their younger colleagues might appear to be a less desirable situation than the reverse pattern. But if we reflect on the findings of a study by Soh (1984) who conducted a partial replication of an earlier study by Lau et al. (1968) on the motives of student teachers in choosing teaching as a career, we might find a plausible answer. Soh found that whereas the 1968 group were influenced more by such motives as: 'A noble profession, Influenced by relatives, Influenced by teachers, Suit temperament, Had no alternatives and Financial Difficulty', a significantly higher proportion of the 1981 group gave such motives as: "Like children, To realise potential, Like to teach, and Prefer to work with children". The older teachers in the sample of the present study probably include some from the 1968 cohort, while the younger teachers probably include some from the 1981 cohort. The motives cited by the 1968 group are either no longer relevant or more readily satisfied. Whereas, those cited by the 1981 group, albeit more desirable and challenging, are nevertheless less easily satisfied or require conditions less easily attained. One interpretation of the age group differences in the present study is that the older teachers are probably more complacent, while the younger teachers have higher self-expectations.

4.5 A rather surprising set of results is that there are no significant differences between schools that differ according to school achievement in examinations (School Status). This is so despite the special feature in the sampling to provide contrasts by selecting schools from the top quartile and bottom quartile in terms of overall academic results and also when the study for the Goh Report (1979) did show a significant relationship between the type of schools by examination results and the morale of teachers. Perhaps some compensatory factors operate which make it, for example, as challenging and satisfying or as frustrating and dissatisfying to teach high fliers or slow learners.

4.6 At this juncture, it might be useful to mention briefly some of the results of the content analysis of qualitative interview responses. In her analysis, Lee (1988) found it convenient to categorise the open-ended statements of sources of enthusiasm into:

I The Teaching and Learning Process Theme

II The School Environment

III The Teacher and Professionalism.

These correspond roughly to the categories of Teaching Practices, Conditions of Work and Roles and Responsibilities in the questionnaire survey. (For the sources of discouragement, an additional category, namely IV The Education System was added, but this could be subsumed under the School Environment).

4.7 Group interviews were conducted with a total of 211 teachers in groups varying in size between 6 to 10 teachers each. Each group was asked to list sources of enthusiasm, and discouragement, and each teacher was asked to choose 2 sources from each list and to explain their reasons for the choices. In comparing the frequency of responses to sources of enthusiasm for the groups and the individuals, the highest source of enthusiasm for both groups (16.3%) and individuals (33.2%) responses was: "Teaching and relating to motivated, responsive and well-behaved students". For sources of discouragement, however, the highest frequency for groups (16.0%) was "Working under Supervision", whereas for individuals (20.5%) it was "Coping with teaching constraints". These responses bear a close relationship to the questionnaire findings which show that under Teaching Practices, the highest predictors of Overall Satisfaction and Work Orientation are "Teacher-Pupil Rapport" and "Pupil Behaviour Control", respectively and, under Conditions of Work, the highest predictors are "Conducive Work Environment" and "Professional Autonomy", respectively.

- 4.8 Assuming that job satisfaction is related to professional excellence, serious attention should be paid to improving the conditions of work so that teachers would be able to fulfil their roles and responsibilities through various teaching practices in a more effective and efficient way. The present study suggests some of the areas that need to be emphasised in school policies and teacher education. With further analyses of the questionnaire responses, especially in relation to the interview results, and with possible implications from cross-cultural comparisons, more specific, and perhaps more definitive, suggestions could hopefully be advanced for the improvement of teacher job satisfaction.

REFERENCES

- 1 Evans, Martin G. (1969). Conceptual and operational problems in the measurement of various aspects of job satisfaction, Journal of Applied Psychology, 53 (2), 93-101.
- 2 Goh, Keng Swee et al. (1979). Report on the Ministry of Education, 1978. Singapore: Ministry of Education.
- 3 Ho, Juan Beng (1985). A Study of Job Satisfaction of Teachers in Singapore. Unpublished M Ed dissertation, National University of Singapore.
- 4 Lau, Wai Har et al. (1968). Why Teach? A Study of Motives for Teaching as A Career. Singapore: Teachers' Training College.
- 5 Lawler, Edward E. (1973). Motivation in Work Organisations. Monterey: Calif: Brooks and Cole.
- 6 Lee, Frances (1988). A Cross-National Study of Teacher Job Satisfaction. The Singapore Study: A Report on the Analysis of the 211 Secondary and Pre-University Teachers' Responses in the Group Interviews and Individual Written Explanations. Unpublished Report, Singapore: Institute of Education.
- 7 Soh Kay Cheng (1984). Why Teach? Motives for Teaching Revisited, Singapore Journal of Education, 6 (1), 37-43.
- 8 Wanous, John F. and Edward E. Lawler (1972). Measurement and meaning of job satisfaction, Journal of Applied Psychology, 56(2), 95- 105.

BACKGROUND
CHARACTERISTICS

• Personal Characteristics

- eg . Gender
• Age
• Qualification Level

• Prof'l Characteristics

- eg . Subject Areas
• No. of periods
per day
• Prof'l Memberships

• School Characteristics

- eg . School Type
• School Level
• School Status



• Work Conditions

- eg . Prof'l Autonomy
• Collegial Support
• Incongruent Work
Environment

• Roles & Responsibility

- eg . Pastoral Role
• Prof'l Development
• Super'n & Manage't

• Teaching Practices

- eg . Teacher-Pupil Rapport
• Pupil Behaviour
• Pupil-oriented
Pedagogy

JOB
CHARACTERISTICS

TEACHER JOB
SATISFACTION

• Overall
Satisfaction

• Work
Orientation



Fig. 1: Main Variables in
Study on Teacher
Job Satisfaction

Fig. 2: SOME BACKGROUND CHARACTERISTICS
(N=926)

Gender	F		M	
	67.7%		32.3%	

Age	<25	25-29	30-34	35-39	40-44	45-49	≥50
	(4.2%)	(28.8%)	(17.8%)	(16.8%)	(15.6%)	(9.1%)	(7.7%)

Education	'O'	'A'	'Pass'	'Hons'	Masters
	(7.9%)	(22.5%)	(41.4%)	(24.6%)	(3.2%)

Subject Areas	Lang. Arts	Sec. Lang.	Social Studies	Science	Maths	Others
	25.3%	9.0%	16.5%	18.2%	15.6%	15.4%

Periods/Day	< 5	5	6	≥ 7
	13.8%	14.6%	43.0%	28.6%

Professional Membership	0	1	≥ 2
	55.1%	34.8%	9.1%

School type	Govt.	Aided
	77.6%	22.4%

School Level	Sec.	Pro-U	J.C.
	61.9%	10.3%	27.8%

School Status	High Achiev.	Low Achiev.
	42.3%	57.7%

Personal
Characteristics

Professional
Characteristics

School
Characteristics

TABLE 1 TEACHER JOB SATISFACTION AND SOME ASSOCIATED VARIABLES

Significant Differences, with only Highest Group Shown

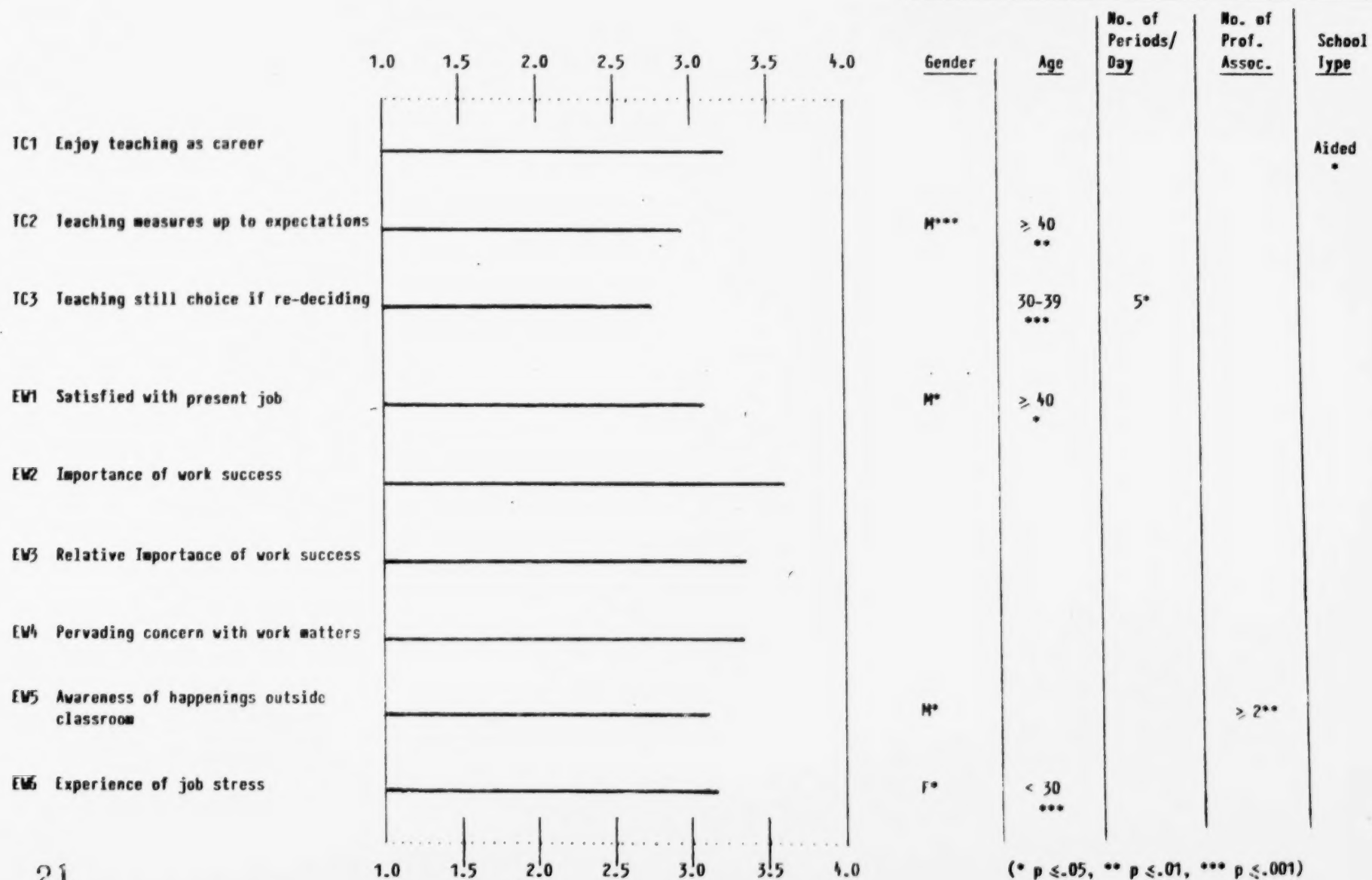


TABLE 2 PRESENCE OF CONDITIONS OF WORK AND IMPORTANCE FOR JOB SATISFACTION AND SOME ASSOCIATED VARIABLES

Significant differences, with only Highest Group Shown

	1.0	1.5	2.0	2.5	3.0	Gender		Age		Periods/ Day		Prof. Assoc.		School type	
						Pres.	Imp.	Pres.	Imp.	Pres.	Imp.	Pres.	Imp.	Pres.	Imp.
2. Helping develop school policies						M***		≥40**	<30**			≥2**	≥2**	G*	
27. School-community contact															
32. Adequate promotion opportunities						M***		≥40***		≥7*		≥2*	1**		
15. Adequate in-service incentives						M**		<30*	<30**	<5***		0**			
33. Promotion fairly handled						M***	F*			5***		1**		A*	
5. Enough free periods per week							F*		<30*		6*	≥2*			
4. Reasonable class sizes						M***	F***	≥40***	<30*			≥2***			
26. Community respect for teachers								≥40*	<30*		≥7***				
12. Reasonable clerical-administrative work								<30*		≥7*	≥7***				
31. Good extra-salary benefits															
25. Supportive parents															
19. Collegial interactions encouraged						M***		≥40**		≥7*		≥2*			
13. New programmes-practices encouraged							F**	≥40*	30-39*						
14. Enough recognition for work done						M*		≥40*			6**				
28. School-community problems well handled								≥40**							
23. School policies consistently carried out						M*		≥40**							
8. Expected after-school work reasonable						M*	F**	≥40**		5*		≥2*	1***	G*	
20. Meeting with colleagues valuable								≥40*		≥7**					
1. Encouraged to experiment strategies-ideas						M*						≥2*			
24. Staff morale generally good								≥40**				≥2*		A*	
16. Responsive pupils in classes										≥7*				A**	G*
18. Adequate technical-clerical support								<30*				≥2*			
11. Pleasant physical surroundings										≥7***					
30. Pay good						M***	M*	≥40***	<30*	≥7*					
10. Advice-consultation readily available						M*		≥40*		5*	5**				
21. Immediate superior helpful								<30*			5**				
22. Principal's success in fostering cooperation								≥40**			5**			G*	
7. Teaching free of outside interruptions						F***		≥40**				0*		G*	
3. Freedom to decide on how to do work								<30*		<5*					
6. Responsibilities clearly defined							F*	≥40*	30-39*						
9. Adequate materials-equipment for work						M*	F**	≥40**	30-39*						
17. Collegial support-cooperation							F*		30-39*	5*					
29. Job security good															

(----- Importance variable
 ----- Presence variable)

(* p ≤ .05, ** p ≤ .01, *** p ≤ .001)

TABLE 2A: RE-GROUPING OF 'CONDITIONS OF WORK' VARIABLES
BY COMPARING RESPONSE PATTERNS ACCORDING TO
'PRESENCE' AND 'IMPORTANCE'

Grouping of Responses on 'Presence of Conditions of Work' Scale	Relative 'Increase' in Responses on 'Importance for Job Satisfaction' Scale over Responses in 'Presence of Conditions of Work' Scale		
	<u>0 - .25</u>	<u>.25 - .50</u>	<u>> .50</u>
1.0 - 1.5	-	-	2, 27, 32
1.5 - 2.0	-	-	15, 33, 5, 4, 26, 12, 31, 25, 19, 13, 14, 28
2.0 - 2.5	-	6, 9, 17	23, 8, 20, 1, 24, 16, 18, 11, 30, 10, 21, 22, 7, 13
2.5 - 3.0	29	-	-

TABLE 3 PRESENCE OF ROLES & RESPONSIBILITIES AND IMPORTANCE FOR JOB SATISFACTION AND ASSOCIATED VARIABLES

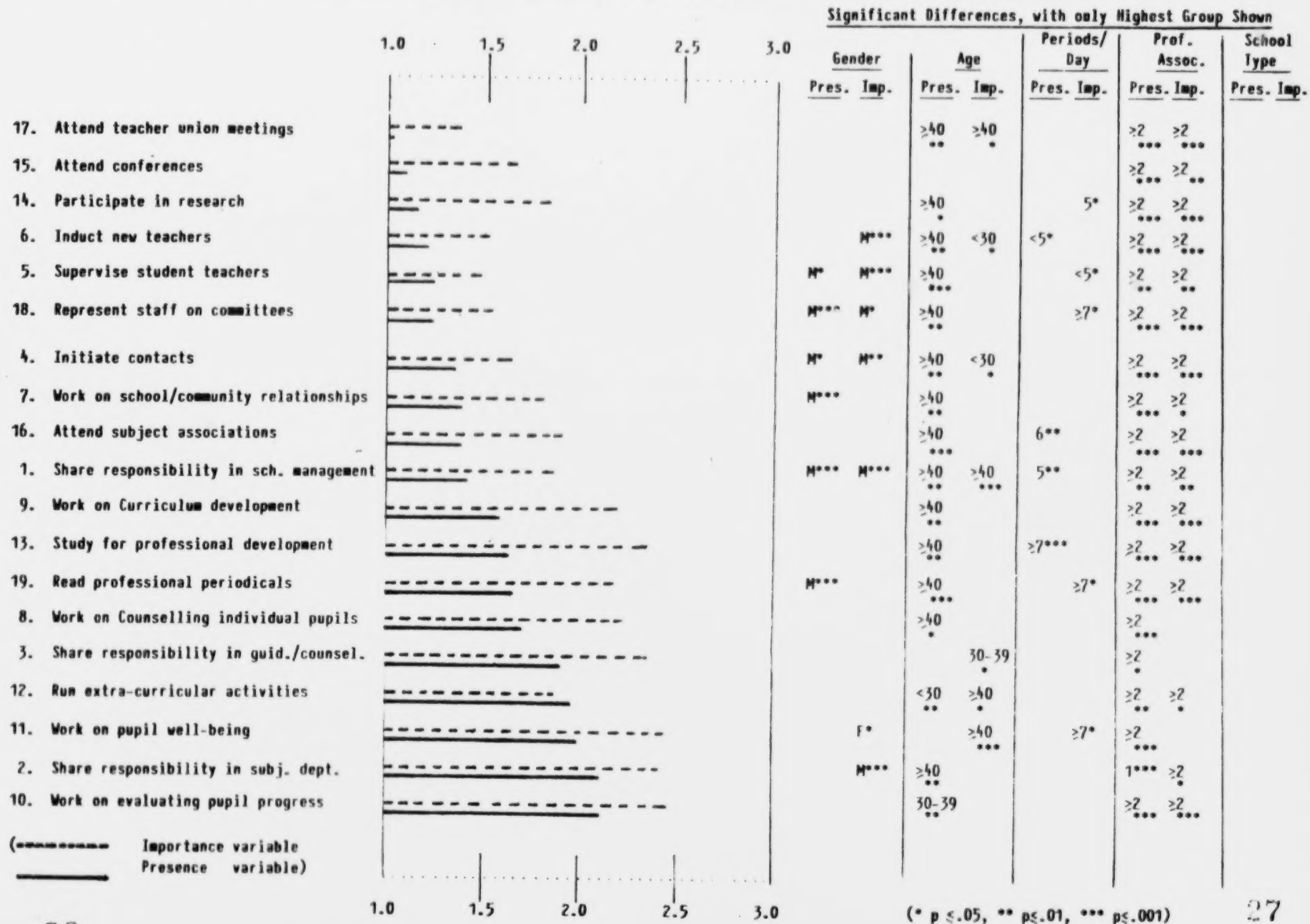


TABLE 3A: RE-GROUPING OF 'ROLES AND RESPONSIBILITIES'
VARIABLES BY COMPARING RESPONSE PATTERNS
ACCORDING TO 'PRESENCE' AND 'IMPORTANCE'

Grouping of Responses on 'Presence of Roles and Respon- sibilities' Scale	Relative 'Increase' (or 'Decrease') on 'Importance for Job Satisfaction' Scale over Responses in 'Presence of Roles and Responsibilities' Scale			
	<u>< 0</u>	<u>0 - .25</u>	<u>.25 - .50</u>	<u>> .50</u>
1.0 - 1.5	-	-	17, 6, 5, 18, 4	15, 14, 7, 16, 1
1.5 - 2.0	12	-	3, 11	9, 13, 19, 8
2.0 - 2.5	-	-	2, 10	

TABLE 4 PRESENCE OF TEACHING PRACTICES AND IMPORTANCE FOR JOB SATISFACTION AND SOME ASSOCIATED VARIABLES

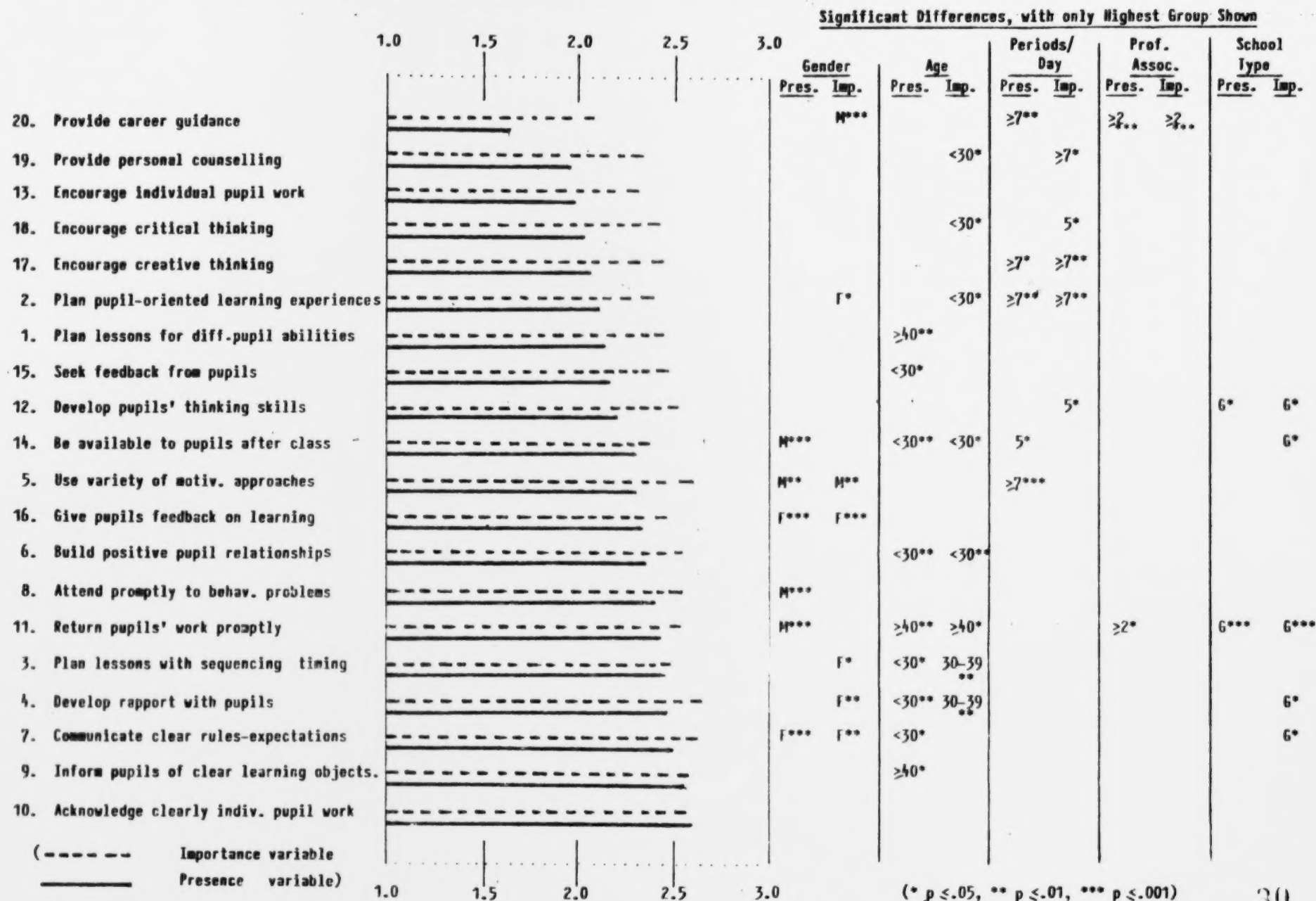


TABLE 4A: RE-GROUPING OF 'TEACHING PRACTICES'
VARIABLES BY COMPARING RESPONSE PATTERNS
ACCORDING TO 'PRESENCE' AND 'IMPORTANCE'

Grouping of Responses on 'Presence of Teaching Practices' Scale	Relative 'Increase' (or 'Decrease') in Responses on 'Importance for Job Satis- faction' Scale over Responses in 'Presence of Teaching Practices' Scale		
	<u>< 0</u>	<u>0 - .25</u>	<u>.25 - .50</u>
1.5 - 2.0	-	-	20, 19, 13,
2.0 - 2.5	-	14, 16, 6 8, 11, 3, 4, 7	18, 17, 2, 1, 15, 12, 5
2.5 - 3.0	10	9	-

TABLE 5: 'TEACHER JOB SATISFACTION' VARIMAX
FACTOR PATTERN MATRIX (SHOWING
SIGNIFICANT LOADINGS ONLY)

<u>Variable</u>	<u>Factor 1</u> 'Overall Satisfaction'	<u>Factor 2</u> 'Work Orientation'
TC1	60	-
TC2	70	-
TC3	74	-
EW1	74	-
EW2	-	72
EW3	-	71
EW4	-	73
EW5	-	48
EW6	-46	42

TABLE 6: ONE-WAY ANOVAS FOR SOME BACKGROUND CHARACTERISTICS VARIABLES, WITH OVERALL SATISFACTION AND WORK ORIENTATION AS DEPENDENT VARIABLES

<u>VARIABLE</u>	<u>OVERALL SATISFACTION</u>				<u>WORK ORIENTATION</u>		
<u>Personal Characteristics</u>	<u>df</u>	<u>F</u>	<u>P</u>	<u>Comment</u>	<u>F</u>	<u>P</u>	<u>Comment</u>
° Gender	1/924	3.57	.06	NS	0.34	.56	NS
° Age Group	2/924	4.58	.01	<u>≥ 40</u> <u>30-39</u> < 30**	0.60	.55	NS
° Qualification Level	2/859	8.53	.0002	GCE <u>HONS+</u> <u>PASS</u> ***	0.09	.91	NS
<u>Professional Characteristics</u>							
° Subject Areas	5/791	0.94	.46	NS	1.99	.08	NS
° No. of Periods/Day	3/883	3.62	.01	<u>5 < 5</u> <u>6 > 7</u> **	0.19	.90	NS
° Professional Memberships	2/850	1.68	.19	NS	3.89	.02	<u>> 2</u> <u>1</u> <u>0*</u>
<u>School Characteristics</u>							
° School Type	1/288	1.54	.22	NS	2.03	.16	NS
° School Level	2/273	0.69	.50	NS	0.75	.50	NS
° School Status	1/288	0.00	.95	NS	0.75	.39	NS

TABLE 7: 'CONDITIONS OF WORK' VARIMAX FACTOR PATTERN MATRICES FOR 'PRESENCE' AND 'IMPORTANCE' VARIABLES, AS WELL AS FOR SECOND ORDER FACTOR ANALYSIS OF THE TWO SETS OF FACTORS. (SHOWING SIGNIFICANT FACTORS ONLY)

Variable	'Presence' Factors							'Importance' Factors							
	CWP1	CWP2	CWP3	CWP4	CWP5	CWP6	CWP7	CWI1	CWI2	CWI3	CWI4	CWI5	CWI6	CWI7	CWI8
1							68								64
2			64												69
3							56								62
4					70					51					
5					68									60	
6	45									55					
7	52									55					
8					38									64	
9					42					66					
10		47								48					
11	41									34					
12					48									67	
13			42									47			
14			44								42				
15			58									36			
16				49							54				
17		65									71				
18		56									40				
19		63										60			
20		49										66			
21		54									48				
22	69												50		
23	69								56						
24	54								46						
25				70					63						
26				65					59						
27				52								59			
28	55								71						
29					63			64							
30					69			77							
31					54			72							
32			63					53							
33			40					43							

Second Order Factors	CWP1	CWP2	CWP3	CWP4	CWP5	CWP6	CWP7	CWI1	CWI2	CWI3	CWI4	CWI5	CWI6	CWI7	CWI8
COND 1							78								77
COND 2		76									74				
COND 3					-69			50						58	
COND 4			74									70			
COND 5	71									71					
COND 6						68			52						
COND 7				69									58		

TABLE 8: 'ROLES AND RESPONSIBILITIES' VARIMAX FACTOR PATTERN MATRICES
FOR 'PRESENCE' AND 'IMPORTANCE' VARIABLES, AS WELL AS FOR
SECOND ORDER FACTOR ANALYSIS OF THE TWO SETS OF FACTORS.
(SHOWING SIGNIFICANT FACTORS ONLY)

<u>Variable</u>	<u>'Presence' Factors</u>					<u>'Importance' Factors</u>		
	<u>RRP1</u>	<u>RRP2</u>	<u>RRP3</u>	<u>RRP4</u>	<u>RRP5</u>	<u>RR11</u>	<u>RR12</u>	<u>RR13</u>
1			66			60		
2			72			38		
3	68							62
4				43		69		
5				84		79		
6				81		76		
7	42					62		
8	80							72
9			52					57
10	59							79
11	73							81
12					51	37		
13					68		60	
14		52					77	
15		69					78	
16		46					65	
17		77					56	
18		57					54	
19					57		58	
Second								
Order								
<u>Factor</u>	<u>RRP1</u>	<u>RRP2</u>	<u>RRP3</u>	<u>RRP4</u>	<u>RRP5</u>	<u>RR11</u>	<u>RR12</u>	<u>RR13</u>
ROLE 1	75							86
ROLE 2		71					79	
ROLE 3				87		72		
ROLE 4			75		-48			

TABLE 9: 'TEACHING PRACTICES; VARIMAX FACTOR PATTERN MATRICES FOR 'PRESENCE' AND 'IMPORTANCE' VARIABLES, AS WELL AS FOR SECOND ORDER FACTOR ANALYSIS OF THE TWO SETS OF FACTORS. (SHOWING SIGNIFICANT LOADINGS)

<u>Variable</u>	<u>'Presence' Factors</u>					<u>'Importance' Factors</u>		
	<u>TPP1</u>	<u>TPP2</u>	<u>TPP3</u>	<u>TPP4</u>	<u>TPP5</u>	<u>TPI1</u>	<u>TPI2</u>	<u>TPI3</u>
1					75		44	
2					47			47
3		51					70	
4				75				78
5				47				61
6				67				64
7		61					71	
8		61					62	
9		58					67	
10		50				50	(49)	
11		54					53	
12	70					66		
13	40					66		
14			61			59		
15			51			63		
16			48			64		
17	75					76		
18	80					77		
19			73			61		
20			67			61		
Second Order Factor								
<u>Factor</u>	<u>TPP1</u>	<u>TPP2</u>	<u>TPP3</u>	<u>TPP4</u>	<u>TPP5</u>	<u>TPI1</u>	<u>TPI2</u>	<u>TPI3</u>
PRAC 1				79				84
PRAC 2		81					83	
PRAC 3	81					79		
PRAC 4			73		-63			